

## REMARKS

Applicant's counsel thanks the Examiner for the careful consideration given the application.

By this amendment, the previous claims 1-26 have been cancelled and new claims 27-51 have been added, based on original claims 1-26. In detail, new claims 27-51 contain all the features of original claims 1-26, and moreover new claims 27-51 are a reformulation of original claims 1-26, since the latter raised concerns from the Examiner under Section 112, second paragraph. New claim 27 contains all the features of original claims 1 and 22.

No new matter has been added.

### Rejections Under 35 U.S.C. § 112

As above stated, new claims 27-51 are a reformulation of original claims 1-26. Such a reformulation has been provided with the aim of rendering the claims definite and better pointing out and distinctly claiming the subject matter which applicant regards as the invention.

In view of such a reformulation, the Applicants respectfully request that the rejection under U.S.C. § 112 be withdrawn.

### Rejections Under 35 U.S.C. § 103

Original claim 22 was rejected under 35 USC § 103(a) as being unpatentable over Gmbh (EP 1234539) in view of Morinaga (US 5570692).

The Examiner considers that Gmbh ('539) discloses a disposable device for surgical operations on the arteria haemorrhoidalis, comprising:

- a retractor tube, closed and rounded at one its end, which is provided upon its side surface with at least a window,
- a gripping handle,
- means to illuminate said window, said illumination means comprising a luminous source fixed in removable manner inside said handle and comprises, at the level of the conjunction zone of the handle to the external end of the retractor tube, means to reflect the light supplied from said luminous source and to allow that the said reflected light illuminates the internal portion of the retractor tube and particularly said lateral window.

As stated by the Examiner, Gmbh ('539) is silent with respect to an ultrasonic probe partially projecting through an opening longitudinally obtained on the lateral wall of the retractor tube, in such a manner that the same probe results to be in contact with the rectal mucosa.

In the Examiner's opinion, Morinaga (US 5570692) teaches of an analogous device comprising an ultrasonic Doppler blood flow detector used for hemorrhoid artery ligation having a hollow insertion cylinder which is enclosed at the distal end and open at the near end, and can be inserted through the anus, the cylinder having an ultrasound transducer in its interior wall for detecting blood flow in the affected artery, and a ligation

hole next to the transducer through which the detected artery is ligated with ligation device, such as a curved needle or a wire for cautery.

The Examiner considers that it would have been obvious to one skilled in the art at the time the invention was made to include an ultrasonic probe in the apparatus of Gmbh ('539), to effectively treat diseased tissue as taught by Morinaga (US 5570692).

The Applicant puts in evidence that Morinaga (US 5570692) fails to disclose:

- 1) that the retractor tube is provided, in alignment with the exploration window and upstream of said exploration window, with a longitudinal, rectilinear and internal chamber;
- 2) that the chamber is delimited by a baffle which is integral with internal walls of the retractor tube and with a posterior side of the exploration window;
- 3) that the chamber results opened toward the external mouth of the retractor tube;
- 4) that the ultrasonic probe is friction-housed in said chamber;
- 5) that the ultrasonic probe is partially projecting through an opening longitudinally obtained on a lateral wall of the retractor tube.

*(the above features 1 to 5 are the features of original claim 22, now included into new claim 27).*

By contrast, Morinaga ('692) discloses (with reference to each of the above features 1 to 5):

- 1') that the retractor tube is provided, in alignment with the exploration window (20) and upstream of said exploration window (20), with a square external chamber (23);
- 2') that the chamber (23) is entirely delimited by the lateral walls of the retractor tube, without any baffle as can be seen in figure 3 of Morinaga ('692);
- 3') that the chamber (23) results opened to a side of the lateral wall of the retractor tube and closed toward the external mouth of the retractor tube, as can be seen in figure 3 of Morinaga ('692);
- 4') that the ultrasonic transducer (22) is contained in a molding plate (52), without any indication about how the molding plate is fixed into the chamber (23) (it seems that the ultrasonic transducer 22 is fixed to the retractor tube, therefore the transducer seems neither to be frictionally housed into the chamber, nor to be removable from the tube);
- 5') that the ultrasonic transducer (22) is entirely contained in the dimension of the lateral wall of the retractor tube, namely that the ultrasonic transducer (22) is not projecting through any opening longitudinally obtained on a lateral wall of the retractor tube.

Moreover, the above features 1-5 are also not disclosed by Gmbh ('539).

The above differences (1-5 with respect to 1'-5') between the claimed solution (new claim 27) and Morinaga ('692) clearly show that, even applying the teachings of Morinaga ('692) to the apparatus of Gmbh ('539), the resulting apparatus will be completely different from the apparatus corresponding to new claim 27.

The Applicants respectfully submit that Gmbh ('539) and Morinaga ('692), even in combination, do not disclose or suggest the features of the invention as arranged in new claim 27. Accordingly, new claim 27 is not rendered obvious by Gmbh ('539) in view of Morinaga ('692).

As such, the Applicants submit that claim 27 is allowable over Gmbh ('539) in view of Morinaga ('692).

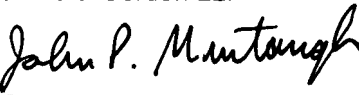
Accordingly, the Applicants respectfully request that the rejection under U.S.C. §103 be withdrawn.

In summary, the prior art made of record but not applied by the Examiner has been carefully considered but is submitted to be less relevant than the references previously discussed.

The Applicants respectfully submit that new claim 27 is allowable. Claims 28-51 depend from claim 27. The Applicants further submit that each of these claims incorporate the patentable aspects thereof, and are therefore allowable for at least the same reasons as discussed above. Accordingly, the Applicants respectfully request withdrawal of the rejections, allowance of claims 27-51 and the prompt issuance of a Notice of Allowability.

Applicant notes that the Examiner cited US 6616603 in the Office action, but did not make it of record on a Form 892. Applicant also notes that DE 199 29 314 A1 and DE 830544 were listed on Applicant's Form PTO-1449 but were not initialed by the Examiner. Applicant assumes that they were not initialed because the Examiner did not have copies of the references, even though copies were supposed to have been sent to the U.S. PTO by the IB. Applicant assumes the copies were lost or misplaced before they got to the Examiner. So that the Examiner may consider these references and make them of record, applicant is enclosing herewith another Form PTO-1449 listing these three references and is also enclosing copies of the two German references with translations or corresponding English patents. US 6616603 and the translation of DE 830544 were not cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing below after making reasonable inquiry, these two items were not known to any individual designated in Section 1.56(c) more than 3 months prior to the filing of this document. US 6390973 has already been considered and initialed by the Examiner on the prior Form PTO-1449. If any further fees are required by this communication, please charge such fees to our Deposit Account No. 16-0820, Order No. 38328.

Respectfully Submitted,  
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